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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,284	09/16/2003	Mark F. Mathias	8540G-000119	3228

27572 7590 03/01/2006

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER
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CANTELMO, GREGG

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



**DETAILED ACTION**

***Response to Amendment***

1. In response to the amendment received February 9, 2006:
  - a. Claims 7-11 have been cancelled. Claims 1-6 are pending.

***Election/Restrictions***

2. Applicant's election without traverse of Group I, claims 1-6 in the reply filed on February 9, 2006 is acknowledged.

***Information Disclosure Statement***

3. The information disclosure statement filed September 16, 2003 has been placed in the application file and the information referred to therein has been considered as to the merits.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0160252 (Hirahara).

Hirahara discloses a method of forming a gas diffusion paper comprising: cutting carbon fibers into predetermined lengths, forming a paper material using the chopped carbon fibers; impregnating the paper material with a thermoset resin material, molding

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the impregnated paper material to a predetermined thickness and density, and heating the molded impregnated paper material to a carbonization temperature.

Hirahara recognized that the product is carbonized **or** graphitized (paragraph [0065]) and thus for the former product, the process would not include a graphitization temperature (as applied to claim 1). See Example 4, wherein the fiber/phenol mixture of Example 3 is heated to 900 °C in an inert atmosphere to carbonize the resin (as applied to claim 1).

One of ordinary skill in the art would further recognize that in order to carbonize the product for a diffusion paper which is not graphitized, the carbonization temperature would be below 1900°C and occur within the a range between 900 °C and 1400 °C. Example 4 teaches of carbonizing at a temperature of 900 °C (as applied to claims 2 and 3).

The porous diffusion media is wound into a roll (paragraphs [0027] and [0039] as applied to claim 4).

Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)

In the case of the instant application the basis for expectation of inherency is:

Since the precursor materials and process of carbonizing the combination are identical in the instant application and that of Hirahara, there is a reasonable expectation that the product of Hirahara will inherently exhibit a carbon content less than 99.5% and have a d-spacing (d(002)) of 3.44 Angstroms or higher, absent clear evidence to the contrary (as applied to claims 5 and 6).

The Examiner requires applicant to provide that that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product.

Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6

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p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

FAXES received after 4 p.m. will not be processed until the following business day.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo  
Primary Examiner  
Art Unit 1745

gc

A handwritten signature in black ink, appearing to read 'Gregg Cantelmo', written over a horizontal line.

February 23, 2006